

NEEDED:
LIBRARIANS, ARCHIVISTS, AND RECORDS MANAGERS
FOR THE
ORGANIZATION, ACCESS, AND PRESERVATION
OF GOVERNMENT INFORMATION
IN THE ELECTRONIC ERA

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INTRODUCTION, OPPORTUNITIES AND CONTRIBUTIONS

I believe to deal effectively in the digital government environment, practitioners must combine skills heretofore practiced separately by archivists, records managers, and librarians. I believe we must fundamentally re-think the previous, now in the digital era almost artificial, differentiation between these skills and build towards new hybrid professionals who can borrow from each of our professions to support the operations of e-government. Since I have lived and worked in countries primarily based on English Common Law, this paper is written from that context.

Technology has drastically changed governmental information. It has transformed information from what we can read and hold, to what we have to organize and manage electronically. Today individuals have access, through electronic or digital government, to a wide range of information services—if those services, delivered via information bytes and documentation, are organized, accessible, and preserved for multiple use.

Government of every type and from all cultures, at every level—local, regional, state, tribal, provincial, or national—was ultimately created and continues to exist for very fundamental purposes: the protection and predictability necessary to ensure our ability to live our daily lives. We turn to our government to protect us from other governments and other individuals who would wreak havoc with our livelihood or way of life. The specifics vary widely, but human beings cannot live and function if they do not know what to expect—what their government's rules are. In some countries, such as the United States, there is a greater expectation that the information and the rules of interaction be shared. But in any government environment, citizens have to know what the rules are that they must follow. We expect our government to provide to us the information we need to interact with it; to enable us to successfully operate other aspects of our lives; to record our rights and entitlements; and to define the context within which we live our lives and do our work.

We also look to government to document its actions and our interactions with it to guarantee the capacity to recreate a specific set of decisions or actions for judicial, legal, or accountability assessments. Government depends on accurate and accessible information for those who govern and for the governed.

Electronic delivery of governmental services and e-government actions result in electronic records as evidence of transactions. Electronic publications are often the only documentation of actions and decisions. Both the services and the information generated by government are crucial to all of us. Electronic government information may be here today and gone tomorrow if we do not provide for long-term access. Every change in national, state, regional, or local office holders may result in drastic revisions to what is available online within a

few hours or minutes. Currently, there is rarely a record of what had been available previously if it only existed in an electronic format. In this government information environment, the three professional disciplines of librarians, archivists, and records managers must work together with technology professionals to ensure that government information is accessible and is preserved to provide permanent public access.

To quote Preston Huff, upon reviewing this paper in draft form,
...I agree with the content of your paper. It is something that I increasingly see in the three professions mentioned.... I am now credentialed in all three areas (MLS), CA (certified archivist) and CRM (certified records manager). There has never been a more exciting time in these areas than the present. The challenges brought about by the emerging technologies are bringing us closer together. At the Library of Virginia we are forming a committee that will cross virtually all division lines to address electronic records and information....¹

Politics are often concerned with the immediate. Politicians must worry about re-election or re-appointment. Similarly, technology is judged mainly by speed of transaction. Technology experts are expected to focus primarily on today's production or necessary results. Conversely, the skills of the records, archival, and library communities focus not only on today, not only on a set of interactions between service provider and service recipient, but also on the documentation that will prevent a repeat of mistakes made yesterday and provide for a future that will last longer than tomorrow.² We must talk about the value we bring to the table in the digital age. We must embrace the digital age of government content and develop the expertise that ensures the evolution of our disciplines as practitioners in the government world.³ Our historic and current contributions—authenticity, authority, and respect for past practices balanced with current usability—are critical in the electronic information era. We possess the ability to work with all parties and to participate in all forums; to be knowledge navigators (the finders of electronic content) in all types of information brokering (business transactions relating to access to electronic content);⁴ to establish standards that are used across multiple fields of endeavor; and to teach practitioners and recipients (or users) how to access materials and services. I believe unless the three disciplines (library, archives and records) work together and collaborate

¹ Preston Huff, Director, Records Management and Imaging Services Division, Library of Virginia, personal email May 6, 2002.

² Dr. Robert Martin, Director, Institute of Museum and Library Services, "The Role of Libraries in Lifelong Learning", presented at the Five States Indian Conference, Mesa, Arizona, May 9, 2002.

³ Michael Totherow, Director, Computer Services, Office of the Arizona Secretary of State – personal email May 10, 2002.

⁴ Nancy Bolt, Colorado State Librarian, describes the services that United States librarians offer government workers in her paper *Serving State Government—Librarian Skills, User Education, Services and Support* presented at the International Federation of Library Associations Section on Government Libraries Pre-Conference, London, August 15, 2002.

with technology professions, the information we require to provide our services, do our work, run our governments, or live our lives, will be lost by accident or design.

The respect that we have gained for working across all types of professions, with all types of users—especially in all sorts of governmental situations—will be essential in building a collaborative approach that will result in effective government information dissemination. If we cannot build the library, archival, and record-keeping responsibilities into the initial business process assessment prior to the implementation of new systems or migrations from system to system, we may have lost the battle to make government information truly accessible, and lost the silent war to preserve electronic content for future litigation or investigation.

In summary, our organizations and practitioners walk into the 21st century technological grid with its array of mesmerizing choices as historically trusted colleagues. Our professionals and practitioners are grounded in content, in education, in the creating and supporting of learners, and in the producing, sharing, preserving and accessing information, and finally most importantly, collaborating and communicating.⁵

ISSUES AND CONCEPTS NEEDED IN E-GOVERNMENT

Authenticity (the quality of being original or a true and faithful copy) will be especially crucial to litigation, accountability, and implementation or regulation in a digital government environment. The ability to be certain that the judicial or regulatory process is grounded in legitimate representations of actions (or documentations of those implementations) will be essential to the core services and operations of government. In the electronic information world, when records can be changed by a keystroke or a power surge, we must develop ways to be certain that the documentation methods used in our legal processes are accurate and authentic unchanged. Archivists have specialized in authentication in the paper world. They will have to work closely with technology professionals to create measures of authenticity for the digital world. This is a challenge in an electronic information world where documents, sound bites, and pictures can be easily altered without signs of revision.⁶

Authority is as critical as authenticity. We must know beyond doubt that not only is the recreated e-record or publication authentic, but also that the creators are identified and provable, and had the authority to engage in the action. The archival skills from the historic paper environment must be carried forward in the

⁵ Beverly Sheppard, Deputy Director, Institute of Museum and Library Services, presentation at the Arizona Convocation 2002, Tucson, Arizona, March (<http://www.lib.az.us/convocations/2002/sheppard.html>)

⁶ George L. Paul, Partner, Lewis and Roca Attorneys at Law, "The 'Authenticity Crisis' in Real Evidence", *Scientific Evidence Review Monograph* No.5, Fall 2001.

digital age to ensure that context and authority are clear, re-creatable, and defensible. Technology professionals, the tool managers, archivists, and other content managers will have to collaborate in new and powerful ways for e-government to survive and succeed.⁷

Information must not only be authentic and authoritative—it must be found—be accessible. We are known as knowledge navigators on the information sea. It is our professional, and often legal, responsibility to make sure information can be easily and repeatedly found. The unpredictable environment of the World Wide Web makes documentation replication and authentication extremely difficult. It is up to us to draw from all of our skills to ensure that users from all walks of life can both find what they need in the first instance and find it again. It is not good enough to find a single fact once. We must be able to replicate the search for that fact and see the fact as originally presented. We must also be able to demonstrate, years after the fact, that government followed an approved course of action during a specific time period.

Information must be shared between governmental units and with citizens. Our professions were concerned with standards and interoperability long before those terms were co-opted into the technological world. MARC⁸ records codified agreed description standards and symbolizes a revolution in the library world's ability to share materials and research and to build a common agenda, as well as to inter-relate collections. Establishing description standards and communication standards was essential to interoperability as our catalogs catapulted onto the World Wide Web.

Standards to facilitate information sharing such as MARC represent, must be continuously developed and continuously re-engineered to meet the needs of the new electronic or digital government era. These standards will not be updated by librarians, archivists, or records managers alone. These essential standards must evolve with all three skill sets working together with the technology community.

Supporting all of the attributes that we bring to the 21st century is our very powerful concern and caring about government functionality, operability and understandability. It is my belief that working together these three professions can be part of the team needed to transform government information into the digital environment in ways that will work and last.

SKILL SETS

⁷ Guy Louis Rocha, Assistant Administrator, Archives and Records Administration, Nevada Department of Museums, Library and Arts, and in telephone conversation with the author on May 11, 2002

⁸ See http://lcweb.loc.gov/marc/concise/concise.html#general_intro for additional information on MARC records

Library Skills

Librarians have historically been concerned with 1) selecting mission-appropriate information; 2) indexing information for retrieval and organization, including adopting standards to allow sharing information and research; 3) retrieval of information regardless of the format, function, or origin of the information; and 4) documentation both of search strategies and results. Research-information gathering skills must be learned. Our professions are skillful teachers.⁹ We are seen as masters at fostering inquiry-based learning, at nurturing self-directed learning, and in support of learning throughout individuals' career and personal lifecycle needs.

Librarians may now use metatagging to ensure that electronic web-page information is searchable. This will ensure that agencies' customers get what they need immediately on their online search, rather than just an endless list of everything that might match the search terms. This is one example of how our traditional skills transfer to assist digital government retrieval. (See Nancy Bolt's paper for this conference entitled *Serving State Government—Librarian Skills, User Education, Services and Support* for a summary of current types of library activities).

We propose that these selection, indexing, retrieval, and documentation skills will be needed in the technological environment employed by e-government. Library skills are as essential in the new electronic environment as they were in the paper world.

Archival Skills

The archival skill sets of authentication, establishing provenance (origins), collection level or group description and/or appraisal also bring incredible nuances and enrichment to the e-government world. The archival community must continue to work with the technology community to develop the capacity to authenticate specific pieces of electronic information—i.e., that this photograph was indeed the photograph taken at this particular moment in time, that this collection was created by its purported author.¹⁰

Second, we have expected the archival community to establish provenance—where an information set came from, when it was originated, and who worked on it. This provenance remains critical, but becomes more challenging for electronic documents or lacking paper trails of actions taken or decisions made.

⁹ Beverly Sheppard, Deputy Director, Institute of Museum and Library Services, presentation at the Arizona Convocation 2002, Tucson, Arizona, March (<http://www.lib.az.us/convocations/2002/sheppard.htm>)

¹⁰ Dr. David Levy, Information School, University of Washington – Arizona Convocation 2002, Tucson, Arizona, March, reference Scrolling Forward: Making Sense of Documents in the Digital Age)

Third, the archival ability to do collection-level description and collection-level appraisal will be essential. We may not have the luxury of item-by-item specificity allowed us in the paper environment. We will also need to work from the point of creation, not after the fact. Nonetheless, we must be able to appraise what is essential and provide enough description of groups of information so that retrieval and documentation may still be completed. These sorts of skills must be institutionalized and work as rapidly as the technological environment in which they work or the archival enhancements will not be allowed to function, and our entire attempt at e-government may fail.

Record Manager Skills

From records management we learn not only about life-cycles of government records; we learn about the life-cycle of information itself. We learn that some information must be preserved and retained, migrated from format to format, refurbished as necessary, and kept in an active accessible manner. We also learn that much governmental information serves a very finite, very time-limited purpose, and the majority of that information may be and indeed should be destroyed in a routine, pre-arranged, responsible function.

Records managers also teach us to think about organizing not just by item or by content, but by type and use of information, which in the non-eye readable environment of e-government will become ever more essential. (Electronic information does not exist in a way it can be readily understood by looking at it—it requires time-specific equipment and software.) For example, future researchers may need to simply review contracts for water resources and water piping and transportation delivery by that type when they only have the idea that it was a water contract. Researchers may simply only know a name, for example it was a water contract having to do with a Salt River Project. Today e-government must ensure that the business practices and the resulting information created can be retrieved, documented, accessed, or destroyed regardless of what information approach is used/or retrieval fact known.

Records managers teach us to think about the business process of government. If we think about government as a series of interactions that results in information—information as an important by-product—then we must also look at the over-all government business practices in order to plan effectively for information use and retrieval.

To quote Dr. Robert Martin, after his review of this paper,
...One distinction that I have found useful to make is that while all records systems are information systems, all information systems are not records systems. Records systems require that context and structure be managed as well as content. Information systems usually only manage content. If we are to get control over digital records, we need to assure that the information systems are

developed to address the needs of records systems. The technology provides ample opportunity to manage digital records easily, if we only build the capacity into the systems from the group up, rather than chasing it after the fact. This is a special case of what Paul Peters [former director the Coalition for Networked Information] used to talk about: that we need to stop standing under the torrent of materials pouring out of the pipeline and trying to sort them out; instead we need to get up at the top of the pipeline and sort them as they go into it. That means applying useful metadata to a record as it is created. That metadata can include a “destroy on date” so that records disposal becomes automatic....¹¹

APPRAISAL

Nowhere in the work that all three professions share does it become more critical to think across historic skills sets than in the appraisal of materials. It is essential that we think outside our traditional professional boundaries and professional definitions as we decide what electronic material must be accessed and how, and for how long, by whom, under what methodology, and with what equipment. The appraisal process must now include representatives of the library, archives, and records management professionals, and it must begin at the onset of the development of the business process. Technology ensures that things can be done very quickly, but it also necessitates that we, in our practitioner groups, move quickly. We must work at the onset of a new business practice, or new system development, or the implementation of a new program, to make sure that the information retrieval, records keeping, archival aspects of the information that will be generated by the new process or the new project, are taken care of up front – are built into the system, into the technological solution, at the very beginning. It becomes far too expensive and often politically embarrassing to retro-fit these solutions after the fact.

Attached to this report is a working document, entitled *Appraising Records—Criteria for Archival Value*, developed by the Arizona State Library, Archives and Public Records, and codified by Richard Pearce-Moses, Director of Digital Government Information. It represents the first tangible product resulting from our decision in Arizona to combine our professional skills to deal with the e-government or digital government arena. The Director of Digital Government Information for the Arizona State Library, Archives, and Public Records is a certified archivist, a credentialed librarian holding a master’s degree, and is currently being trained in records management to ensure that we build in all three skill sets as we explore the opportunities and challenges of digital government information.

¹¹ Dr. Robert Martin, Director, Institute of Museum and Library Services, personal email May 28, 2002.

CONCLUSION

It is part of our challenge to know not only which of our skill sets we need for particular activities, but also to know which negotiations we must seek to join. Even as we have to think differently, learn differently, and worry on a different scale about our end products, we also have to learn to negotiate with practitioners outside historical collegial boundaries. We need to be sure we are all part of the necessary discussions. It is as important for a state librarian to be at the chief information officers' council as it is to be at the state library association meeting. It is as important for the state records officer to be involved with state procurement as it is for that individual to be involved with the records management association. It is as essential that the state archivist be involved in state business processes as it is for that individual to be involved in historic photograph associations or oral history associations.

We are facing the most exciting time imaginable for all three of our professions, but it is a time of great challenge and anxiety. We must remember our assets, we must remember what we bring to e-government debates, and we must continue to explain, to teach, to prove our worth. The stakes are high—for all of us. We are poised to witness a loss of information content that could exceed anything that has happened since mankind began recording its government.¹²

Unless we are able to:

- select the electronic content products to preserve and properly index,
- retrieve those information products, or relevant portions of them, flawlessly and repeatedly,
- document the authenticity, authority, and governmental processes, and
- maintain the retrieval and index patterns in perpetuity

then we will have failed to transfer government to the electronic environment.

If we fail either to work together or to work with all of the other professionals concerned with digital government, who then will ensure that government information created today is here for use tomorrow—or when needed?¹³ Unless we translate our traditional responsibilities into the digital government environment, government could lose its capacity to provide either protection or predictability and will falter.

¹² Guy Louis Rocha, Assistant Administrator, Archives and Records Administration, Nevada Department of Museums, Library, and Arts, in May 12, 2002 email follow-up to earlier conversation.

¹³ IBID